

## ANALYSIS OF PORK PREFERENCE AND CONSUMPTION PATTERN AMONG HOUSEHOLDS IN ASSAM

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### ABSTRACT

*A study was carried out in four prominent areas of Assam where the pork availability and consumption is high. Data were collected from a total of 100 respondents from different households through a pre-tested, reliable and valid interview schedule. A large majority of the respondents preferred pork very much followed by chicken. The order of reasons for pork preference by the respondents was its taste and availability, season, affordable cost, habituated with pork, nutritional value, locality and tradition. The order of factors influencing high consumption of pork and its products which were highly agreed by the respondents in pooled sample were agricultural season, occasions/ceremonies, community festivals, weekly market day, weekends/holidays, arrival of guest or relatives, day or week of a month, community work, socio-political achievements and for other reasons. About 29.00 percent of the respondents consumed pork twice a month, followed by three times in a month. The trend of pork consumption pattern since the last five years was somewhat increased. An overwhelming majority (81.00 per cent) of the respondents 'most frequently' procured pork from the road side butcher and most often procured pork by judging its freshness.*

**KEYWORDS:** Analysis, Pork, Preference, Pattern, Households & Assam

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### INTRODUCTION

Pork consumption is negligible in India, with the exception of the northeast while it is a major item elsewhere. In Assam, the pork and its produces are in demand, their dominance has been increasing over time and they are integral to our very system of community life. The state has a pork marketing scenario which projects a very poor self-sufficient image, because demand for pork is so high, whereas, local production cannot suffice the actual demand (Payenget *al.* 2013). In Assam context, culture, traditions, customs and taboos influence meat consumption to a great extent especially in the rural societies. However, urbanization has been causing a rise in demand for pork products. As people move to cities, they start getting into pork consumption in the last few years. Therefore, the study was done to know the present scenario of pork demand and its preference and consumption pattern by the pork consumers of Assam, which will help to get an indication for a sustainable future pork market to fill in the gap between the demand and supply of pork in Assam.

### MATERIALS AND METHODS

An investigation was undertaken in four prominent areas of Assam, where the pork availability and consumption is high i.e. Dhemaji, KarbiAnglong, Kamrup and Tamulpur. From each of these areas, 25 numbers of pork consumers were randomly selected from different households, making the total sample size of 100. For our

generalization, we assumed that the pork scenario of Assam was represented by these four areas to fulfill the objectives. Data for various relevant aspects were collected through a pre-tested, reliable and valid interview schedule. The data thus collected were scored, compiled and tabulated as per the established norms and procedures and were subjected to appropriate statistical analysis (ANOVA Test) in order to arrive at a conclusion in respect of the set objective.

## RESULTS AND DISCUSSIONS

### Profile of the Respondents

From the study, it was found that the mean age of the pork consumers was 29 and had a medium size family (4-5). A larger percentage (86 per cent) of the household heads were male and were civil servants. The majority of the respondents belonged to Scheduled Tribe caste and had a mean educational qualification value of 5.31 (High secondary). The mean annual family gross income of the respondents was Rs.146560 /-.

### Meat Preference

The people of the whole of the North Eastern Region of the country, usually have a craze for different varieties of meat. There has been people, place and preference interaction since time immemorial. Based on the total score, meat preference by the consumers was calculated. It was exhibited in Table 1.1 that, a large majority (79.00 per cent) of the respondents preferred pork very much followed by chicken (50.00 per cent). While, 50.00 per cent, 17.00 per cent, 10.00 per cent, 2.00 per cent and 1.00 per cent 'much' preferred chicken, pork, duck, beef and other meat respectively. It was also seen that, a large majority (79.00 per cent) of the respondents 'occasionally' preferred duck and mutton/ chevon. Interestingly, only 2.00 per cent and 5.00 per cent among them preferred beef 'much' and 'occasionally' respectively. The reasons might be due to high influence of pork than other meat in N.E. States and in Assam. Even though, people preferred duck and mutton/ chevon but due to its high cost they could afford it only occasionally. It was also found that, beef was also liked by those pork consumers who were Christians in the surveyed areas. These findings were endorsed by Imchen (2014).

**Table 1.1: Frequency Distribution of the Respondents on the Basis of Meat Preference by the Consumer**

Area	Meat	Very much	Much	Occasionally	Not at all
Dhemaji (n=25)	Chicken	11 (44.00)	14 (56.00)	0 (0.00)	0 (0.00)
	Duck	0 (0.00)	7 (28.00)	18 (72.00)	0 (0.00)
	Pork	19 (76.00)	5 (20.00)	1 (4.00)	0 (0.00)
	Mutton/ Chevon	0 (0.00)	0 (0.00)	23 (92.00)	2 (8.00)
	Beef	0 (0.00)	0 (0.00)	0 (0.00)	25 (100.00)
	Others	0 (0.00)	1 (4.00)	9 (36.00)	15 (60.00)
KarbiAngl ong (n=25)	Chicken	9 (36.00)	16 (64.00)	0 (0.00)	0 (0.00)
	Duck	0 (0.00)	3 (12.00)	22 (88.00)	0 (0.00)
	Pork	23 (92.00)	2 (8.00)	0 (0.00)	0 (0.00)
	Mutton/ Chevon	0 (0.00)	0 (0.00)	22 (88.00)	3 (12.00)
	Beef	0 (0.00)	0 (0.00)	4 (16.00)	21 (84.00)
	Others	0 (0.00)	0 (0.00)	10 (40.00)	15 (60.00)
Kamrup (n=25)	Chicken	19 (76.00)	6 (24.00)	0 (0.00)	0 (0.00)
	Duck	0 (0.00)	0 (0.00)	20 (80.00)	5 (20.00)
	Pork	15 (60.00)	7 (28.00)	3 (12.00)	0 (0.00)

	Mutton/ Chevon	0 (0.00)	0 (0.00)	22 (88.00)	3 (12.00)
	Beef	0 (0.00)	2 (8.00)	1 (4.00)	22 (88.00)
	Others	0 (0.00)	0 (0.00)	3 (12.00)	22 (88.00)
Tamulpur (n=25)	Chicken	11 (44.00)	14 (56.00)	0 (0.00)	0 (0.00)
	Duck	0 (0.00)	0 (0.00)	19 (76.00)	0 (0.00)
	Pork	22 (88.00)	3 (12.00)	0 (0.00)	0 (0.00)
	Mutton/ Chevon	0 (0.00)	0 (0.00)	12 (48.00)	13 (52.00)
	Beef	0 (0.00)	0 (0.00)	0 (0.00)	25 (100.00)
	Others	0 (0.00)	0 (0.00)	13 (52.00)	12 (48.00)
Pooled (n=100)	Chicken	50 (50.00)	50 (50.00)	0 (0.00)	0 (0.00)
	Duck	0 (0.00)	10 (10.00)	79 (79.00)	11 (11.00)
	Pork	79 (79.00)	17 (17.00)	4 (4.00)	0 (0.00)
	Mutton/ Chevon	0 (0.00)	0 (0.00)	79 (79.00)	21 (21.00)
	Beef	0 (0.00)	2 (2.00)	5 (5.00)	93 (93.00)
	Others	0 (0.00)	1 (1.00)	35 (35.00)	64 (64.00)

**Note:** Figures in the parentheses () indicate percentages.

Further, Table 1.2. showed that the average of meat preference by the consumers was 13.80, 13.84, 13.24, 13.08 and 13.49 in Dhemaji, KarbiAnglong, Kamrup, Tamulpur and pooled sample with their respective standard deviation as 1.15, 0.90, 1.27, 0.91 and 1.10 and ranges as 12-16, 13-15, 11-16, 12-15 and 11-16 respectively. Based on mean and standard deviation, the respondents were categorized into low, medium and high groups. Their distribution were 4.00 per cent, 76.00 per cent and 20.00 per cent in Dhemaji, 0.00 per cent, 68.00 per cent and 32.00 per cent in KarbiAnglong, 8.00 per cent, 80.00 per cent and 12.00 per cent in Kamrup, 32.00 per cent, 64.00 per cent and 4.00 per cent in Tamulpur and 15.00 per cent, 68.00 per cent and 17.00 per cent in pooled sample. These findings received support from the study of where they reported that in Assam among tribal people, pork was the first choice irrespective of its price. The present findings were also enough to indicate that there was a huge demand for pork in all the surveyed areas due to factors like taste, versatility, habituation, season etc. And it was also clear from the findings that some critical features inherent in all the kinds of meat guided the consumers to prefer one over another. Further, the 'F' value was found to be significant (3.27\*,  $P < 0.05$ ). This could be due to the variation in preference and perception of people from various socio-ethnics and cultural back ground in Assam. The finding also received support from the findings of Dekamet *et al.* (2007), Mulliet *et al.* (2010), Oh and See (2012) and Imchen (2014).

**Table 1.2: Frequency Distribution of the Respondents on the Basis of Meat Preference by the Consumer (Mean, Standard Deviation and Range)**

District	Mean	SD	Range	Categories			'F' value
				Low	Medium	High	
Dhemaji (n=25)	13.80	1.15	12-16	1 (4.00)	19 (76.00)	5 (20.00)	3.27*
KarbiAnglong (n=25)	13.84	0.90	13-15	0 (0.00)	17 (68.00)	8 (32.00)	
Kamrup (n=25)	13.24	1.27	11-16	2 (8.00)	20 (80.00)	3 (12.00)	
Tamulpur (n=25)	13.08	0.91	12-15	8 (32.00)	16 (64.00)	1 (4.00)	
<b>Pooled (n=100)</b>	13.49	1.1	11-16	15 (15.00)	68 (68.00)	17 (17.00)	

**Note:** Figures in the parentheses () indicate percentages.

\*, Significant at 0.05 level of probability

### Reasons for Pork Preference

The value of pork is surpassed by its delicacy and versatility in the state of Assam. Table 2.1 showed that the order of reasons for pork preference by the respondents were its taste/ versatility and availability (100.00 per cent), season (84.00 per cent), affordable cost (81.00 per cent), habituated with pork (80.00 per cent), nutritional value (79.00 per cent), locality (53.00 per cent) and tradition (50.00 per cent). This kind of apprehension was also expressed by Cranfield (2013) where he reported that, the meat demand was mainly influenced by evolving consumer preferences for convenience, taste, health benefits, consumer income, prices of competing proteins (e.g. poultry, pork and lentils) and further indicated that price, food safety, product quality and health were important determinants of consumption. The result was a natural and expected outcome and also received support from the studies of Deka *et al.* (2007) and Rajkhowa (2013).

**Table 2.1: Frequency Distribution of the Respondents on the Basis of Reasons for Pork Preference**

Area	Availability	Nutritional value	Affordable	Habituated	Tradition	Taste/versatility	Seasonality	Locality
Dhemaji (n=25)	25 (100.00)	17 (68.00)	17 (68.00)	23 (92.00)	16 (64.00)	25 (100)	24 (96.00)	19 (76.00)
KarbiAnglong (n=25)	25 (100.00)	21 (84.00)	25 (100)	22 (88.00)	15 (60.00)	25 (100)	20 (80.00)	17 (68.00)
Kamrup(n=25)	25 (100.00)	23 (92.00)	14 (56.00)	15 (60.00)	9 (36.00)	25 (100)	24 (96.00)	2 (8.00)
Tamulpur(n=25)	25 (100.00)	18 (72.00)	25 (100)	20 (80.00)	10 (40.00)	25 (100)	16 (64.00)	15 (60.00)
<b>Pooled(n=100)</b>	100 (100.00)	79 (79.00)	81 (81.00)	80 (80.00)	50 (50.00)	100 (100)	84 (84.00)	53 (53.00)
<b>Rank</b>	<b>I</b>	<b>V</b>	<b>III</b>	<b>IV</b>	<b>VII</b>	<b>I</b>	<b>II</b>	<b>VI</b>

**Note:** Figures in the parentheses ( ) indicate percentages.

From Table 2.2 it was found that, the average score of reasons for pork consumptions preference were 14.64, 14.80, 13.48, 14.16 and 14.27 in Dhemaji, KarbiAnglong, Kamrup, Tamulpur and pooled sample with their standard deviation as 1.03, 1.16, 1.05, 0.80 and 1.13 and ranges as 13-16, 13-16, 12-16, 13-15 and 12-16 respectively. Based on mean and standard deviation, the respondents were categorized into low, medium and high groups. Their distribution were 20.00 per cent, 60.00 per cent and 20.00 per cent in Dhemaji, 16.00 per cent, 44.00 per cent and 40.00 per cent in KarbiAnglong, 16.00 per cent, 68.00 per cent and 16.00 per cent in Kamrup, 24.00 per cent, 36.00 per cent and 40.00 per cent in Tamulpur and 29.00 per cent, 55.00 per cent and 16.00 per cent in pooled sample. The F value was found to be highly significant (8.48<sup>\*\*</sup>). In the favor of the present findings Imchen, 2013, also reported that in addition to taste and flavor, pork as the first preferred meat might have been due to several reasons including easy husbandry practices in the uneven terrains, favourable climatic condition, high proficiency and easy import facility in the region.

**Table 2.2: Frequency Distribution of the Respondents on the Basis of Reasons for Pork Preference (Mean, Standard Deviation and Range)**

Area	Mean	SD	Range	Categories			'F' value
				Low	Medium	High	
Dhemaji (n=25)	14.64	1.03	13-16	5 (20.00)	15 (60.00)	5 (20.00)	8.48**
K. Anglong (n=25)	14.80	1.16	13-16	4 (16.00)	11 (44.00)	10 (40.00)	
Kamrup (n=25)	13.48	1.05	12-16	4 (16.00)	17 (68.00)	4 (16.00)	
Tamulpur (n=25)	14.16	0.80	13-15	6 (24.00)	9 (36.00)	10 (40.00)	
<b>Pooled (n=100)</b>	14.27	1.13	12-16	29 (29.00)	55 (55.00)	16 (16.00)	

**Note:** Figures in the parentheses () indicate percentages.

\*\*, Significant at 0.01 level of probability

### Factors Influencing High Consumption of Pork and its products

With these findings an attempt was made to understand the factors influencing high consumption of pork and its product in the surveyed areas. In fact, there were 10 factors enlisted and the respondents were asked to put their responses in four degrees. Table 3.1 showed that the order of factors influencing high consumption of pork and its products which were highly agreed by the respondents in pooled sample were agricultural season (88.00 per cent), occasions/ ceremonies (72.00 per cent), community festivals (69.00 per cent), weekly market day (59.00 per cent), weekends/holidays (54.00 per cent), arrival of guest or relatives (51.00 per cent), day or week of a month (48.00 per cent), community work (35.00 per cent), socio-political achievements (34.00 per cent) and for other reasons (13.00 per cent). These factors were also highly agreed by the respondents. So it was found that season was the most important factor which influenced pork consumption. This could be justified from the facts that human beings during cold weather normally feel hungrier and tend to consume more quantum of food. Under such circumstances, increase in pork and its consumption were very much expected. For many tribes of Assam, truly speaking, akin to need or urgency, more than anything else, pork has taken a turn of serious customary practice without which any marriage, event or occasion is considered incomplete. However, in macro levels similarity in findings could be derived from the study of Dekaret *al.* (2007), where they reported that, in Assam various festivals occurred during the winter season including Christmas, New Year's Day, MaghBihu (the Assamese agriculture-based festival), Ali Ai Ligang (harvesting festival of Mishing tribes) and Sok-Keroi and Ronkers (festival of Karbis), Bathou puja (a religious festival of the Bodo community), where the demand for pork was reported to be much higher. Unlike in Karbi Anglong district, variation of demand of pork within a month was not reported, probably because of the low proportion of salaried employees in the district. In some urban centers, demand for pork was higher on Sundays resulting in more demand for slaughter pigs on Friday and Saturday. On the other hand, in rural areas demand was usually much higher on weekly market days, perhaps because supply was ensured on those days. In many tribes, a trend of serving guest and relatives with pork was a common way of hospitality in Assam. It was also found that in many community work and socio-political achievement, people usually celebrated with a pork meal. Other factors like increase consumption of liquor among the tribal people also influencing more consumption of pork and its product in the surveyed area.

**Table 3.1: Frequency Distribution of the Respondents on the Basis of Factors Influencing High Consumption of Pork and its Products**

Areas	Degree	Agricultural seasons	Community festivals	Occasions/ ceremonies	Weekend/ holidays	Days/ week of the months	Weekly market	Arrival of guests/relatives	Socio-political Achievement	Community work	Others
Pooled (n=100)	Highly agreed	88 (88)	69 (69)	72 (72)	54 (54)	48 (48)	59 (59)	51 (51)	34 (34)	35 (35)	13 (13)
	Agreed	12 (12)	17 (17)	20 (20)	39 (39)	46 (46)	27 (27)	18 (18)	22 (22)	15 (15)	24 (24)
	Sometime	0 (0)	14 (14)	8 (8)	7 (7)	4 (4)	11 (11)	17 (17)	18 (18)	22 (22)	23 (23)
	Rarely	0 (0)	0 (0)	0 (0)	0 (0)	2 (2)	3 (3)	14 (14)	26 (26)	28 (28)	40 (40)

**Note:** Figures in the parentheses ( ) indicate percentages.

Further Table 3.2 depicted that the average of the factors influencing high consumption of pork and its products was 32.84, 33.08, 27.92, 32.52 and 31.59 in Dhemaji, KarbiAnglong, Kamrup, Tamulpur and pooled sample with their respective standard deviation as 5.03, 6.54, 3.88, 5.45 and 5.65 and ranges as 22-39, 19-40, 22-34, 22-38 and 19-40 respectively. Based on mean and standard deviation, the respondents were categorized into low, medium and high groups. Their distribution were 16 per cent, 48 per cent and 36 per cent in Dhemaji, 20.00 per cent, 68.00 per cent and 12.00 per cent in KarbiAnglong, 28.00 per cent, 36.00 per cent and 36.00 per cent in Kamrup, 16.00 per cent, 52.00 per cent and 32.00 per cent in Tamulpur and 17.00 per cent, 59.00 per cent and 24.00 per cent in pooled sample. The 'F' value was found to be highly significant ( $5.35^{**}$ ,  $P < 0.01$ ). This might be due to diverse influencing factors impacting on pork consumption among different consumers in different areas of Assam. The present findings also endorsed by Zhou *et al.* (2005), and Imchen (2014).

**Table 3.2: Frequency Distribution of the Respondents on the Basis of Factors Influencing High Consumption of Pork and its Products (Mean, Standard Deviation and Range)**

Area	Mean	SD	Range	Categories			'F' value
				Low	Medium	High	
Dhemaji (n=25)	32.84	5.03	22-39	4 (16.00)	12 (48.00)	9 (36.00)	5.35**
K. Anglong (n=25)	33.08	6.54	19-40	5 (20.00)	17 (68.00)	3 (12.00)	
Kamrup (n=25)	27.92	3.88	22-34	7 (28.00)	9 (36.00)	9 (36.00)	
Tamulpur (n=25)	32.52	5.45	22-38	4 (16.00)	13 (52.00)	8 (32.00)	
<b>Pooled (n=100)</b>	31.59	5.65	19-40	17 (17.00)	59 (59.00)	24 (24.00)	

**Note:** Figures in the parentheses ( ) indicate percentages.

\*\*, Significant at 0.01 level of probability

#### **Pork Consumption Pattern (Except on Festivals/ Holidays/ Events)**

The overall pooled sample in Table 4.1 depicted that, a good number (29.00 per cent) of the respondent consumed pork twice a month followed by 26.00 per cent three times in a month, 20.00 per cent once in a month, 11.00 per cent once in a week, 8 per cent occasionally and 6.00 per cent twice in a week. These findings were almost similar to that of Deka *et al.* (2007) where they reported that the consumption pattern in Dhemaji was of 0.75 kg/household thrice in a month and 70 per cent of the "other than ST" community (Ahom and Chutiya) consumed about 0.75 kg pork twice a month. In KarbiAnglong it was of 0.75 kg/household thrice a month among tribal households and estimated 50 per cent of the non-

tribal communities consumed 0.5 kg pork twice a month. However, in Kamrup, a consumption of 0.75 kg/household per week (market source) was reported and general community was estimated to consume 0.5 kg pork twice in a month.

**Table 4.1: Frequency Distribution of the Respondents on the Basis of Pork Consumption Pattern**

Area Settings	Dhemaji (n=25)	KarbiAnglong (n=25)	Kamrup (n=25)	Tamulpur (n=25)	Pooled (n=100)
Everyday	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Alternate day	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Twice in a week	0 (0.00)	3 (12.00)	0 (0.00)	3 (12.00)	6 (6.00)
Once in a week	1 (4.00)	2 (8.00)	1 (4.00)	7 (28.00)	11 (11.00)
Three times a month	6 (24.00)	9 (36.00)	7 (28.00)	4 (16.00)	26 (26.00)
Twice in a month	12(48.00)	6 (24.00)	8 (32.00)	3 (12.00)	29 (29.00)
Once in a month	5 (20.00)	3 (12.00)	7 (28.00)	5 (20.00)	20 (20.00)
Occasionally	1 (4.00)	2 (8.00)	2 (8.00)	3 (12.00)	8 (8.00)

**Note:** Figures in the parentheses () indicate percentages.

Further, Table 4.2 showed that the average of pork consumption pattern were 3.04, 3.60, 2.92, 3.64 and 3.3 in Dhemaji, KarbiAnglong, Kamrup, Tamulpur and pooled sample with their respective standard deviation as 0.89, 1.38, 1.04, 1.66 and 1.30 and ranges as 1-5, 1-6, 1-5, 1-6 and 1-6 respectively. Based on mean and standard deviation, the respondents were categorized into low, medium and high groups. Their distribution were 24.00 per cent, 48.00 per cent and 28.00 per cent in Dhemaji, 20.00 per cent, 60.00 per cent and 20.00 per cent in KarbiAnglong, 8.00 per cent, 60.00 per cent and 32.00 per cent in Kamrup, 12.00 per cent, 76.00 per cent and 12.00 per cent in Tamulpur and 28.00 per cent, 55.00 per cent and 17.00 per cent in pooled sample. The 'F' value was found to be non-significant ( $2.13^{NS}$ ). Support from the findings of Machado *et al.* (2014) also could be drawn in favour of the present text where they stated that, the increase in consumer income in fast growing developing countries tends to induce greater changes in the composition of pork consumption.

A number of factors can also influence household's consumption pattern/ behaviour as a common phenomenon in all places of the world where there might be differences in terms of intensity of factors influencing the effect, but they would surely work in different degrees. These can be economic (e.g. income and price exchange), social (e.g. urbanization leading to dietary changes), culture (e.g. influences by exotic lifestyle) marketing development that makes new product available.

**Table 4.2: Frequency Distribution of the Respondents on the Basis of Pork Consumption Pattern (Mean, Standard Deviation and Range)**

Area	Mean	SD	Range	Categories			'F' value
				Low	Medium	High	
Dhemaji (n=25)	3.04	0.89	1-5	6 (24.00)	12 (48.00)	7 (28.00)	$2.13^{NS}$
K. Anglong (n=25)	3.60	1.38	1-6	5 (20.00)	15 (60.00)	5 (20.00)	
Kamrup (n=25)	2.92	1.04	1-5	2 (8.00)	15 (60.00)	8 (32.00)	
Tamulpur (n=25)	3.64	1.66	1-6	3 (12.00)	19 (76.00)	3 (12.00)	
<b>Pooled (n=100)</b>	3.3	1.30	1-6	28 (28.00)	55 (55.00)	17 (17.00)	

**Note:** Figures in the parentheses () indicate percentages.

NS, Non-significant,

### Trend of Pork Consumption Pattern Since Last Five Years

From Table 5.1 it was revealed that, in pooled sample, a good number (40.00 per cent) of the respondents reported that the trend of pork consumption pattern since last five years was somewhat increased. While, 32.00 per cent, 19.00 per cent and 9.00 per cent of them reported that the trend of pork consumption pattern since last five years was very much increased, same and decreased/ reduced respectively. From these findings it could be understood that, in Assam the consumption of pork was increasing among the traditional and non-traditional consumers in the last few years. The reason might be due to high demand of pork and its product, rapid urbanization, increase in income and popularization of pork among cosmopolite and so, because of these factors, increase in trend of pork consumption pattern is obvious. These finding received support from the study of Deka *et al.* (2007) and Imchen (2014).

**Table 5.1: Frequency Distribution of the Respondents on the Basis of trend of Pork Consumption Pattern Since Last Five Years**

Area	Very much Increased	Somewhat Increased	Same	Decrease /Reduced
Dhemaji (n=25)	6 (24.00)	13 (52.00)	3(12.00)	3 (12.00)
K. Anglong (n=25)	9(36.00)	9(36.00)	4 (16.00)	3 (12.00)
Kamrup(n=25)	8(32.00)	10(40.00)	6 (24.00)	1 (4.00)
Tamulpur (n=25)	9 (36.00)	8 (32.00)	6 (24.00)	2 (8.00)
<b>Pooled (n=100)</b>	<b>32(32.00)</b>	<b>40(40.00)</b>	<b>19(19.00)</b>	<b>9 (9.00)</b>

**Note:** Figures in the parentheses () indicate percentages.

Further, Table 5.2 showed that the average of trend of pork consumption pattern since last few years were 2.88, 2.96, 3.00, 2.96 and 2.95 in Dhemaji, KarbiAnglong, Kamrup, Tamulpur and pooled sample with their respective standard deviation as 0.93, 1.02, 0.87, 0.98 and 0.94 and ranges as 1-4 each respectively. Based on mean and standard deviation, the respondents were categorized into low, medium and high groups. Their distribution were 12.00 per cent, 64.00 per cent and 24.00 per cent in Dhemaji, 12.00 per cent, 52.00 per cent and 36.00 per cent in KarbiAnglong, 28.00 per cent, 40.00 per cent and 32.00 per cent in Kamrup, 8.00 per cent, 56.00 per cent and 36.00 per cent in Tamulpur and 28.00 per cent, 40.00 per cent and 32.00 per cent in pooled sample. The F value was found to be non-significant (0.07<sup>NS</sup>). The mean value was found to be almost 3 in all the areas which showed that, there was a similar trend of pork consumption pattern since the last five years in the respective surveyed areas.

**Table 5.2: Frequency Distribution of the Respondents on the Basis of Trend of Pork Consumption Pattern Since Last five Years (Mean, Standard Deviation and Range)**

Area	Mean	SD	Range	Categories			'F' value
				Low	Medium	High	
Dhemaji (n=25)	2.88	0.93	1-4	3 (12.00)	16 (64.00)	6 (24.00)	0.07 <sup>NS</sup>
K. Anglong (n=25)	2.96	1.02	1-4	3 (12.00)	13 (52.00)	9 (36.00)	
Kamrup (n=25)	3.00	0.87	1-4	7 (28.00)	10 (40.00)	8 (32.00)	
Tamulpur (n=25)	2.96	0.98	1-4	2 (8.00)	14 (56.00)	9 (36.00)	
<b>Pooled (n=100)</b>	<b>2.95</b>	<b>0.94</b>	<b>1-4</b>	<b>28 (28.00)</b>	<b>40 (40.00)</b>	<b>32 (32.00)</b>	

**Note:** Figures in the parentheses () indicate percentages.

NS, Non-significant,



### Procurement of Pork

Table 6.1 revealed that, the overwhelming majorities (80.00 per cent and 92.00 per cent) of the respondents ‘most frequently’ procured meat from the road side butcher in Dhemaji and KarbiAnglong respectively. While in Kamrup, an overwhelming majority (80.00 per cent) of the respondents ‘most frequently’ procured pork from well-maintained pork shop. Whereas, in Tamulpur, cent per cent (100.00 per cent) of the respondents ‘most frequently’ procured pork from weekly market shop. In pooled sample, an overwhelming majority (81.00 per cent) of the respondents ‘most frequently’ procured pork from the road side butcher, followed by 49.00 per cent from well-maintained pork shops and 59.00 per cent from weekly market shop. Interestingly, 3 per cent of the respondents procured pork from the supermarkets ‘sometime’. This might be due to the fact that road side pork butchers are often noticed by the consumers and have easy access and less time consuming. Support from the studies of Dekamet *et al.* (2007) and Imchen (2014) also could be drawn in favour of the present context.

**Table 6.1: Frequency Distribution of the Respondents on the Basis of Procurement of Pork**

Area	Settings	Most frequently	Frequently	Sometime	Not at all
Dhemaji (n=25)	Road side butcher	20 (80.00)	5 (20.00)	0 (0.00)	0 (0.00)
	Well maintained pork shop	15 (60.00)	7 (28.00)	3 (12.00)	0 (0.00)
	Weekly market shop	15 (60.00)	7 (28.00)	3 (12)	0 (0.00)
	Supermarket	0 (0.00)	0 (0.00)	0 (0.00)	25 (100)
	Producers	0 (0.00)	0 (0.00)	0 (0.00)	25 (100)
	Others	0 (0.00)	0 (0.00)	0 (0.00)	25 (100)
KarbiAnglong (n=25)	Road side butcher	23 (92.00)	2 (8.00)	0 (0.00)	0 (0.00)
	Well maintained pork shop	14 (56.00)	9 (36.00)	2 (8.00)	0 (0.00)
	Weekly market shop	19 (76.00)	5 (20.00)	1 (4.00)	0 (0.00)
	Supermarket	0 (0.00)	0 (0.00)	0 (0.00)	25 (100)
	Producers	0 (0.00)	0 (0.00)	0 (0.00)	25 (100)
	Others	0 (0.00)	0 (0.00)	0 (0.00)	25 (100)
Kamrup (n=25)	Road side butcher	18 (72.00)	7 (28.00)	0 (0.00)	0 (0.00)
	Well maintained pork shop	20 (80.00)	5 (20.00)	0 (0.00)	0 (0.00)
	Weekly market shop	0 (0.00)	5 (20.00)	15 (60.00)	5 (20.00)
	Supermarket	0 (0.00)	0 (0.00)	3 (12.00)	22 (88.00)
	Producers	0 (0.00)	0 (0.00)	0 (0.00)	25 (100)
	Others	0 (0.00)	0 (0.00)	0 (0.00)	25 (100)
Tamulpur (n=25)	Road side butcher	20 (80.00)	5 (20.00)	0 (0.00)	0 (0.00)
	Well maintained pork shop	0 (0.00)	2 (8.00)	23 (52.00)	0 (0.00)
	Weekly market shop	25 (100)	0 (0.00)	0 (0.00)	0 (0.00)
	Supermarket	0 (0.00)	0 (0.00)	0 (0.00)	25 (100)
	Producers	0 (0.00)	0 (0.00)	0 (0.00)	25 (100)
	Others	0 (0.00)	0 (0.00)	0 (0.00)	25 (100)
Pooled (n=100)	Road side butcher	81 (81.00)	19 (19.00)	0 (0.00)	0 (0.00)
	Well maintained pork shop	49 (49.00)	23 (23.00)	28 (28.00)	0 (0.00)
	Weekly market shop	59 (59.00)	17 (17.00)	19 (19.00)	5 (5.00)
	Supermarket	0 (0.00)	0 (0.00)	3 (3.00)	97 (97.00)
	Producers	0 (0.00)	0 (0.00)	0 (0.00)	100 (100)
	Others	0 (0.00)	0 (0.00)	0 (0.00)	100 (100)

**Note:** Figures in the parentheses ( ) indicate percentages.

### Criteria for procuring of Pork

From Table 7.1 in the pooled sample, it was found that, an overwhelming majority (95.00 per cent) of the respondents 'most often' procured pork by judging its freshness and quality while 65.00 per cent by their visual inspection and previous taste experience, 50.00 per cent by good display of pork and its products and 21.00 per cent by the quality assurance of pork by the retailers. While, 'often', 51.00 per cent procured by the quality assurance of the pork by the retailers, 47.00 per cent by the good display of it and its products, 32.00 per cent by their visual inspection and previous taste experience, 21.00 per cent by the personal hygiene of the retailers, 5.00 per cent by its freshness and quality and 1.00 per cent by the other reasons. However, 'sometime', 33.00 per cent procured after viewing personal hygiene of the retailer, 28.00 per cent by quality assurance by the retailer, 19.00 per cent by other reasons, 3.00 per cent per cent by its good display and 1.00 per cent by its brand or packaging. This could be explained by the fact that different individuals have different perception and choice.

**Table 7.1: Frequency Distribution of the Respondents on the Basis of Criteria for Procuring of Pork and Pork Products**

Area	Criteria	Most Often	Often	Sometime	Rarely
<b>Pooled (n=100)</b>	Freshness and quality of the pork	95 (95.00)	5 (5.00)	0 (0.00)	0 (0.00)
	quality assurance by the retailer	21 (21.00)	51 (51.00)	28 (28.00)	0 (0.00)
	Personal hygiene of the retailer	0 (0.00)	21 (21.00)	33 (33.00)	46 (46.00)
	brand/packaging	0 (0.00)	0 (0.00)	1 (1.00)	99 (99.00)
	good display of pork/ its products	50 (50.00)	47 (47.00)	3 (3.00)	0 (0.00)
	visual inspection and previous taste experiences	65 (65.00)	35 (35.00)	0 (0.00)	0 (0.00)
	Others	0 (0.00)	1 (1.00)	19 (19.00)	80 (80.00)

**Note:** Figures in the parentheses () indicate percentages.

Further, Table 7.2 showed that, the average of criteria for procuring of pork were 17.60, 17.68, 19.00, 18.24 and 18.13 in Dhemaji, KarbiAnglong, Kamrup, Tamulpur and pooled sample with their respective standard deviation as 1.76, 2.01, 1.94, 1.48 and 1.87 and ranges as 15-21, 15-22, 16-23, 16-21 and 15-23 respectively. Based on mean and standard deviation, the respondents were categorized into low, medium and high groups. Their distribution were 8.00, 72.00 and 20.00 per cent in Dhemaji, 16.00, 64.00 and 20.00 per cent in KarbiAnglong, 28.00, 40.00 and 32.00 per cent in Kamrup, 20.00 per cent, 56.00 per cent and 24.00 per cent in Tamulpur and 23.00 per cent, 64.00 per cent and 13.00 per cent in pooled sample. The 'F' value was found to be significant (3.19 \*,  $P < 0.05$ ). These factors dependent on the extent of modernization of the area concern, ITK of the people, exposure and experience and perception. This kind of apprehension was also expressed byof Deka *et al.* (2007) and Imchen (2014).

**Table 7.2: Frequency Distribution of the Respondents on the Basis of Criteria for Procuring of Pork and Pork Products (Mean, Standard Deviation and Range)**

Area	Mean	SD	Range	Categories			'F' value
				Low	Medium	High	
Dhemaji (n=25)	17.60	1.76	15-21	2 (8.00)	18 (72.00)	5 (20.00)	3.19*
K. Anglong (n=25)	17.68	2.01	15-22	4 (16.00)	16 (64.00)	5 (20.00)	
Kamrup	19.00	1.94	16-23	7 (28.00)	10 (40.00)	8 (32.00)	

(n=25)							
Tamulpur (n=25)	18.24	1.48	16-21	5 (20.00)	14 (56.00)	6 (24.00)	
<b>Pooled (n=100)</b>	18.13	1.87	15-23	23 (23.00)	64 (64.00)	13 (13.00)	

**Note:** Figures in the parentheses () indicate percentages.

\*, Significant at 0.05 level of probability

## SUMMARY AND CONCLUSIONS

In Assam, the pork and its produces are in demand, their dominance has been increasing over time and they are integral to our very system of community life. The most important factors which highly influenced consumption of pork was agricultural seasons. Therefore, the farmers could be accordingly encouraged to produce meat animals, keeping such time in mind to reap more benefits. Also, any strategizing of marketing of pork warranted a focus on these areas. The people in Assam could realized that eating pork was a healthy proposition, there was a prospective scope of the meat industry in Assam. Under such circumstances, meat markets possess a crucial position in protection of health for the people of Assam provided cleanliness, hygiene, sanitation and scientific procedures of pork marketing were maintained. This was viewed as an important area for the administrators because it was not in an encouraging state at the time of the data collection. The preference of consumption of pork by the respondents was highest, followed by other meat. This manner could be of some help in import and export of pork to the local markets. With this, Strategic and proportionate marketing of meat could be possible. And also govt. or private sectors should carry out a study of consumer preferences and perceptions of pork quality – including aspects of taste, appearance and composition – to inform private investment and public planning.

## REFERENCES

1. Zhou Z Y, Wu Y R and Tian W M (2005). "Meat consumption in China"; *Meat and World Trade, Research Journal of Meat and production*, 13 (2), 142-164.
2. Deka R, Thorpe W, Lapar M L and Kumar A. (2007). *Assam's pig sub-sector: current status, constraints and opportunities. Project report, Markets theme, International Livestock Research Institute, Nairobi, Kenya.*
3. Mullie P, Clarys P, Hulens M and Vansant G. (2010). *Dietary patterns and socioeconomic position in Europe. Eur. J. Clin. Nutr.*, 64: 231–238.
4. Oh S H and See M T. (2012). *Pork Preference for Consumers in China, Japan and South Korea; Asian-Australas J Anim Sci.* 2012 Jan; 25 (1): 143–150.
5. Karuna Kanta Saikia & Chandrama Goswami, *Nature and Extent of Income Diversification: A Study of Rural Households in Assam, International Journal of Economics, Commerce and Research (IJEER), Volume 5, Issue 5, September - October 2015, pp. 43-54*
6. Payeng S, Borgohain A and Bora J R. (2013). *Economics of pig production in organized and unorganized sectors. Indian Res. J. Ext. Edu.*, 13 (1): 101-106.
7. Rajkhowa C. (2013). *Mithun: A pride animal of North Eastern hill region, NRC Mithun, Jharnapani, Nagaland.*
8. Imchen I. (2014). *Meat marketing patterns in Kohima district of Nagaland. MVSc Thesis, College of Veterinary Science, Assam Agricultural University, Guwahati, Assam, India.*

9. *Machado S T, Nääs I A, Mendes dos Reis J G and Vendrametto O. (2014). Brazilian Consumers' Preference towards Pork. Meat Science* **86** (1), 214 – 226.